

THE CLAIMS DEFINING THE INVENTION ARE AS FOLLOWS:

1. A tensioning system for tensioning cable comprising:
a cable spacing member with a plurality of cable
5 spacing portions for spacing apart a plurality of runs of cable;
a support for supporting the cable spacing member;
one or more adjustable positioning members for
positioning the cable spacing member relative to the
10 support wherein, in use, adjustment of the one or more adjustable positioning members to position the cable spacing member relative to the support adjusts the tension in the runs of cable.
2. A tensioning system as claimed in claim 1, wherein
15 adjustment of the one or more adjustable positioning members is adapted to move the cable spacing member in a direction substantially parallel to a longitudinal direction of the runs of cable.
3. A tensioning system as claimed in either preceding
20 claim, wherein each cable spacing portion includes one or more apertures and/or slots in the cable spacing member.
4. A tensioning system as claimed in claim 3, wherein
respective apertures or slots are spaced apart to space
apart respective runs of cable.
- 25 5. A tensioning system as claimed in any preceding claim, wherein the cable spacing member includes at least three cable spacing portions.
6. A tensioning system as claimed in claim 5, wherein the
cable spacing member includes four or more cable spacing
30 portions.
7. A tensioning system as claimed in any preceding claim, wherein, in use, the cable spacing member is located inside the support.
8. A tensioning system as claimed in claim 7, wherein the
35 support is generally tubular and includes one or more openings along the length thereof for runs of cable to pass through.

9. A tensioning system as claimed in claim 8, wherein the support includes one or more longitudinal slots for cables to pass through.
10. A tensioning system as claimed in claim 9, wherein the
5 or each longitudinal slot is long compared to the radial dimensions of the support.
11. A tensioning system as claimed in any preceding claim, wherein the adjustable positioning members are adapted for manual operation.
- 10 12. A tensioning system as claimed in claim 11, wherein the adjustable positioning members are manually operable by use of a tool.
13. A tensioning system as claimed in any preceding claim, wherein at least one of the adjustable positioning members
15 includes a mechanism which provides a mechanical advantage, so that applying an input force to operate the positioning member results in a greater force being applied to move the bar relative to the support.
14. A tensioning system as claimed in any preceding claim,
20 wherein at least one of the adjustable positioning members includes a bolt or a bolt-like fastener.
15. A tensioning system as claimed in any preceding claim, wherein at least one adjustable positioning member extends from an external region of the support into an internal
25 region of the support.
16. A tensioning system as claimed in any preceding claim, wherein said at least one adjustable positioning member extends through the cable spacing member.
17. A tensioning system as claimed in any preceding claim,
30 wherein the or each adjustable positioning member is associated with at least two operating portions or attachments which are axially moveable relative to each other by rotation of at least one of the operating portions relative to the adjustable positioning member.
- 35 18. A tensioning system as claimed in claim 17, wherein relative axial movement of the operating portions forces relative movement of the cable spacing member and the

support.

19. A tensioning system as claimed in claim 18, wherein one of the operating portions or attachments is a head of a bolt, or bolt-like fastener, which forms at least part of the adjustable positioning member.

20. A tensioning system as claimed in any preceding claim, wherein one or more of the cable spacing portions includes a contour which extends from a lateral edge of the cable spacing member, the contour preferably comprising a laterally extending slot to allow lengths of cable to be introduced laterally into the cable spacing portions.

21. A tensioning system as claimed in any preceding claim, wherein the cable spacing member includes two or more parts, which may be coupled together, in use, to form a single cable spacing member.

22. A tensioning system as claimed in claim 21, wherein the parts are designed so that at least one of the parts is configured to receive lengths of cable into cable spacing portions before coupling with another part to form a single cable spacing member, and so that after coupling, separation of the lengths of cable from the cable spacing member is inhibited by the other part.

23. A tensioning system wherein a tensioning system as claimed in any preceding claim is used for securing and applying a tensioning force to a first end of each run of cable and wherein positioning and/or securing means for the second end of each run of cable includes a tensioning system as claimed in any preceding claim.

24. A barrier including a tensioning system as claimed in any preceding claim.

25. A barrier as claimed in claim 24, wherein, in use, the barrier forms part or all of a fence or balustrade.

26. A barrier as claimed in either of claims 24 or 25, wherein, the barrier includes a support and a cable spacing member for supporting and applying a tensioning force to a first end of each of a plurality of runs of cable, and a secondary support for positioning and/or

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retaining a second end of each of a plurality of runs of cable.

27. A barrier as claimed in any of claims 24 to 26, wherein the barrier includes one or more bracing members for
5 bracing apart the support and the secondary support.

28. A method of tensioning a plurality of runs of cable, comprising:

coupling at least one length of cable to a cable
spacing member having cable spacing portions thereon for
10 spacing apart a plurality of runs of cable, and coupling
said at least one length of cable to a secondary cable
spacing member having cable spacing portions thereon for
spacing apart a plurality of runs of cable, in order to
provide a plurality of runs of cable between the cable
15 spacing member and the secondary cable spacing member;

locating the cable spacing member relative to a support;

providing one or more adjustable positioning members
for adjustably positioning the cable spacing member
20 relative to the support;

locating the secondary cable spacing member relative to a secondary support;

adjusting the one or more adjustable positioning members in order to tension the runs of cable.

25 29. A method as claimed in claim 28, wherein the method is a method of tensioning a plurality of runs of cable in forming a fence or similar barrier.

30 30. A method as claimed in either of claims 28 or 29, wherein locating the cable spacing member relative to a support comprises inserting the cable spacing member into a hollow support.

31. A method as claimed in claim 30, wherein the support is generally tubular and is provided with a longitudinal slot through which, in use, runs of cable extend from the cable
35 spacing member to the outside of the support.

32. A method as claimed in any of claims 28 to 31, wherein adjustment of the one or more adjustable positioning

members is the final step in the above method.

33. A method as claimed in claim 32, wherein the method includes using a spreader device to space apart the support and the secondary support prior to final
5 adjustment of the adjustable positioning members.

34. A method as claimed in any of claims 28 to 33, wherein the method includes insertion of one or more bracing members between the support and the secondary support.

35. A method as claimed in any of claims 28 to 34, wherein
10 the method includes forming a substantially rigid panel comprising a cable spacing member located relative to a support; a secondary cable spacing member located relative to a secondary support; a plurality of runs of cable; and one or more bracing members and/or spreader devices
15 bracing apart the support and the secondary support.

36. A method as claimed in claim 35, wherein the method further includes fixing the substantially rigid panel in a desired location by fixing at least one of the support and secondary support in position.

20 37. A method as claimed in claim 36, wherein the method includes adjustment of the one or more adjustable positioning members after fixing the substantially rigid panel in said desired location.

38. A method as claimed in either of claims 36 or 37,
25 wherein the substantially rigid panel includes one or more spreader devices but no bracing bars prior to fixing of the latter of the support and secondary support in the desired location, and the method includes subsequent insertion of one or more bracing bars between the support
30 and secondary support and subsequent removal of the one or more spreader devices.

39. A method of tensioning a plurality of runs of cable, comprising:

35 providing a plurality of tensioning mechanisms, each tensioning mechanism including a spacing member for attachment of the end or respective first ends of one or more runs of cable;

connecting one or more ends of one or more runs of cable to each tensioning mechanism;

inserting each tensioning mechanism into a hollow support member;

5 providing at least one adjustable positioning member to form part of each tensioning mechanism, each adjustable positioning member extending from an outside to an inside of the associated hollow support member and engaging a spacing member, inside the hollow support member so that
10 adjustment of the adjustable positioning member moves the associated spacing member relative to the hollow support in order to adjust the tension in at least one run of cable; and

adjusting adjustable positioning members to adjust
15 tension in at least one run of cable.

40. A barrier including a tensioning system for tensioning cable, comprising:

a plurality of runs of cable which run between a first support and a second support;

20 a plurality of cable tensioning mechanisms, each tensioning mechanism comprising a spacing member for attachment of the end, or respective first ends, of one or more runs of cable, said spacing members being provided within at least one of the supports and wherein each
25 spacing member has at least one associated adjustable positioning member for adjusting the position of the spacing member relative to the support; and

said adjustable positioning member extending from the outside of the associated support to the associated
30 spacing member located within the support so that the tensioning mechanism can be operated from the outside of the support.

41. A barrier as claimed in claim 40, wherein at least one of the supports is a tubular member with a longitudinal
35 slot through which runs of cable pass.

42. A spreader device for bracing apart an upper and lower support for supporting runs of cable therebetween, the

spreader device comprising:

a spreader body which may be varied in length, the body comprising first and second substantially parallel body members which may move axially relative to each other in order to vary the length of the body;

a lever member pivotally attached to the first body member; and

an engagement portion for allowing the lever member to force the second body member relative to the first body member,

wherein, operation of the lever member provides a mechanical advantage in forcing a predetermined increase in length of the body when the lever is moved from a first position to a second position and wherein the arrangement of the pivot and the engagement portion is such that when the body is at its maximum length, a compressive force between the ends of the body does not tend to force the lever member towards its first position.

43. A spreader device as claimed in claim 42, wherein the spreader device includes an over centre arrangement to prevent said compressive force from forcing the lever towards its first position.

44. A spreader device as claimed in either of claims 42 or 43, wherein the engagement portion comprises a link which is pivotally attached at a first attachment part to the lever member, and which is pivotally attached at a second attachment part to the second body member.

45. A spreader device as claimed in claim 44, wherein the pivot between the lever member and the link crosses a projected line between (i) the pivot between the link and the second body member, and (ii) the pivot between the lever member and the first body member.

46. A spreader device as claimed in either of claims 42 or 43, wherein the engagement portion comprises a cam surface of the lever member and a corresponding cam following surface of the second body member.